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Joseph L. Johnson
LATHROP & GAGE L.C.,
1845 S. National Ave.
P.O. Box 4288
Springfield, MO 65808-4288

EXAMINER	
LARKIN, DANIEL SEAN	
ART UNIT	PAPER NUMBER

2856

DATE MAILED: 05/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/758,639

Applicant(s)
JACKSON, JR.

Examiner
Daniel Larkin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE (3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 Jan 2001 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other:

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1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

Reference numeral -- 73 -- does not appear in the drawing figures as suggested on page 7, line 21; page 9, line 6; page 10, line 1; page 11, line 14; and page 12, lines 13 and 16. Correction is required.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because of the following:

Reference character "23" has been used to designate both "side walls of the housing (13)", as shown in Figure 1, and a "combined sensor switch", as shown in Figures 3 and 5.

Reference character "25" has been used to designate both a "top wall of the housing (13)", as shown in Figure 1, and a "humidity switch", as shown in Figure 4. Correction is required.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:

Reference numeral "70", as shown in Figure 4, does not appear within the written specification. Correction is required.

4. Applicant is required to submit a proposed drawing correction in response to this Office Action. Any proposal by the Applicant for amendment of the drawings to cure defects must consist of two parts:

- a) A *separate* letter to the Draftsman in accordance with MPEP § 608.02(r); and

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b) A print or pen-and-ink sketch showing changes in *red ink* in accordance with MPEP § 608.02(v).

IMPORTANT NOTE: The filing of new formal drawings to correct the noted defect may be deferred until the application is allowed by the Examiner, but the print or pen-and-ink sketch with proposed corrections shown in red ink is required in response to this Office Action, and *may not be deferred*.

5. The disclosure is objected to because of the following informalities:

Page 8, line 13: Some term such as -- gathered -- or -- determined -- should be inserted after the term "be".

Page 10, lines 14 and 15: Reference numeral "23" has been previously used to identify "side walls of the housing (13)" as shown in Figure 1 and disclosed on page 6, lines 12 and 14.

Page 10, line 22: Reference numeral "77" should be corrected to read -- 70 -- or -- 73 --, depending on Applicant's preference to change the specification or Figure 4. Reference numeral "77" has been previously used to identify the microcontrol/microprocessing unit.

Page 11, line 14: The term "for" should be corrected to read -- or --.

Page 12, line 3: Reference numeral "25" has been previously used to identify the "top wall of the housing (13)" as shown in figure 1 and disclosed on page 6, line 12.

Page 12, line 3: The numeral "3" should be corrected to read -- three --.

Page 12, line 15: The term "date" should be corrected to read -- data --. Appropriate correction is required.

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NOTE: Applicant should consider correcting the drawing figures or the text of the specification in order to maintain consistency in the use of terminology. In Figures 3 and 4, reference numeral 77 is used to identify a "microcontrol unit". However, this term is never used within the specification. The term "microprocessor" is used throughout the specification and abstract, except on page 10, lines 10 and 12 and page 11, lines 8, 9, 15, 17, 18, 19, and 21, when the term "microcontroller" is used.

6. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification fails to enable one of ordinary skill in the art to utilize a separate control mechanism, a microprocessor, an air temperature measuring device, and a relative humidity measuring device. The specification, page 3, line 17 through page 4, lines 1-6 and page 8, lines 3-11, states that the control mechanism is comprised of an air temperature measuring device, a relative humidity measuring device, and a microprocessor. Therefore, since the temperature sensor, the humidity sensor, and the microprocessor combine to form the control mechanism, the control mechanism cannot be a structure separate from the elements that form the structure.

The specification fails to enable one of ordinary skill in the art to provide a control mechanism which communicates the ambient air temperature, the ambient relative humidity, and the heat index of the environment to a microprocessor, as recited in claim 1, claim lines 11-14.

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The specification, page 3, line 17 through page 4, lines 1-6 and page 8, lines 3-11, states that the control mechanism is comprised of an air temperature measuring device, a relative humidity measuring device, and a microprocessor. Additionally, the microprocessor calculates the heat index/apparent temperature for the control mechanism based on measurements received from both the air temperature measurement device and a relative humidity measurement device. Therefore, since the control mechanism through the use of the microprocessor calculates/determines the heat index, the communication of the heat index from the control mechanism to the microprocessor is seen as impossible, since the microprocessor is the processing structure of the control mechanism.

7. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Re claim 1, claim lines 1-14: The claim reads like a recipe without any structural interconnection between the elements recited in the claim. One is unclear as to whether or not the microprocessor, the air temperature measuring device, the humidity measuring device, and the power source are all located within the housing member.

Re claim 4, claim lines 1 and 2: Is this "display switch" the same switch recited in claim 3? Claim 4 appears to be a duplicate of claim 3.

Re claim 9, claim lines 1 and 2: This claim is confusing since the claim suggests that a second signal other than a vibratory signal is utilized; however, the vibratory signal could in fact be the signaling device.

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8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

9. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 4-344057 (Noguchi et al.). The reference to Noguchi et al. discloses an amenity sensing device which collects a plurality of factors which affect the comfort ability of a living space. The sensing device comprises a housing (1) with a suction gap (4) for introducing a sample to the various sensors located within the housing (1). The housing contains a temperature sensor (17) and a humidity sensor (18). The outputs of the respective sensors are sent to a calculating means, which calculates a temperature and a heat index among other factors. The results of these calculations are displayed on display means provided on the outer surface of the housing (1). The display means (50) as shown in Figure 4 includes a temperature and humidity display (56) and a digital temperature and humidity display (57). A power switch is activated to operate a fan motor (45) to draw a sample through a duct/air inlet (5) into the housing (1).

10. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,287,762 (Baer). The reference to Baer discloses a digital weather station which includes a first housing (60) holding a transducer (16), as shown in Figure 2, for measuring humidity, a second housing

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holding a transducer (14) for measuring temperature, a control mechanism/microprocessor (22) connected to the housing, and a power source (col. 3, lines 64-65) connected to the microprocessor (22). The control mechanism collects and processes various parameters, such as temperature data and humidity data, calculates the "temperature humidity index" (ie. the heat index), and displays all three, either separately or by manual control of the operator (col. 4, lines 10-14 and 65-68). The reference states that each parameter may be identified by its own indicator display, or a single illuminated display with sequentially illuminated distributed indicia showing which parameter has been selected through selection switch means controlled by a knob (34) (col. 1, lines 55-60 and col. 5, lines 26-28). The microprocessor is employed for calculations and to store data, such as maximum and minimum readings (col. 8, lines 40-45).

As to the limitation of providing an air inlet for the housing(s), the Examiner deems that this limitation is inherent in order for the transducer(s) to measure the respective parameters. Without an air inlet, the transducer would be unable to determine the temperature or the humidity outside of the respective housing.

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-11 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 6,031,455 (Grube et al.). The reference to Grube et

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al. discloses a method and an apparatus for monitoring environmental conditions in a communication system. A subscriber (22) holding a portable sensor (37) senses a particular environmental condition or conditions (28). The sensor (37) may be a cellular telephone, land mobile radio, or any other device that receives or transmits data via a wireless communication path. The sensed conditions are relayed to infrastructure equipment/controller (18) over a wireless communication path. The infrastructure equipment receives the information and processes the information by storing the information, averaging the information, predicting future environmental conditions, generating warning signals based on the levels of the environmental conditions, and providing feedback to an individual communication device (col. 2, lines 31-44). The reference states that environmental conditions (28) may be weather conditions, such as temperature, humidity, etc. The sensor (37) may also be a plurality of sensors to sense a plurality of environmental conditions (28). The subscriber (22) may customize his or her threshold as to when feedback is to be provided (col. 3, lines 7-22). The feedback to the communication devices may be short messaging services, audible alarms, verbal conditions and/or warnings, images, text messages, or any combination thereof. The reference states that the sensor (37) may sense weather conditions, allergen conditions, hazardous gas conditions, and/or any other type of environmental condition that would be of interest to a subscriber (col.4, lines 16-19). The background of the invention states that issuing a warning based on a fixed threshold for an environmental condition, such as heat index, is well known in the art (col. 1, lines 47-50). The sensing of the condition may be done on a periodic basis, continually, or when prompted by the

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controller (col. 4, lines 34-36). Additionally, the subscriber may also, as an alternative, instruct the controller to provide numerical readings related to the subscribed environmental conditions (col. 5, lines 20-27). The communication devices may interpret the sensed data before providing the data to the controller. If the sensed data does not compare favorably against a threshold, then the data is not submitted to the controller (col. 6, lines 9-14).

As to the limitation of providing a vibrational signal to a user/subscriber, as recited in claims 8 and 9, the Examiner takes official notice that vibrational signaling means are well known in the art of wireless communication devices.

As to the limitation of providing an attachment mechanism, as recited in claim 10, the Examiner takes official notice that such a feature is well known in the art of wireless communication devices as a means for attaching a phone, pager, etc. to one's belt, pocket, or purse strap.

13. Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,287,762 (Baer) in view of US 6,031,455 (Grube et al.). The reference to Baer discloses a digital weather station which collects and processes various environmental parameters, such as temperature data and humidity data, calculates the "temperature humidity index" (ie. the heat index), and displays all three, either separately or by manual control of the operator. The reference to Baer fails to disclose a signaling device to alert a user when the heat index reaches a predetermined condition or an attachment mechanism to attach a housing to the user. The reference to Grube et al. discloses a method and an apparatus for monitoring environmental conditions in a communication

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system. A subscriber (22) holding a portable sensor (37) senses a particular environmental condition or conditions (28). The sensor (37) may be a cellular telephone, land mobile radio, or any other device that receives or transmits data via a wireless communication path. The sensed conditions are relayed to infrastructure equipment/controller (18) over a wireless communication path. The infrastructure equipment receives the information and processes the information by storing the information, averaging the information, predicting future environmental conditions, generating warning signals based on the levels of the environmental conditions, and providing feedback to an individual communication device (col. 2, lines 31-44). The reference states that environmental conditions (28) may be weather conditions, such as temperature, humidity, etc. The sensor (37) may also be a plurality of sensors to sense a plurality of environmental conditions (28). The subscriber (22) may customize his or her threshold as to when feedback is to be provided (col. 3, lines 7-22). The feedback to the communication devices may be short messaging services, audible alarms, verbal conditions and/or warnings, images, text messages, or any combination thereof. The reference states that the sensor (37) may sense weather conditions; allergen conditions, hazardous gas conditions, and/or any other type of environmental condition that would be of interest to a subscriber (col.4, lines 16-19). The background of the invention states that issuing a warning based on a fixed threshold for an environmental condition such as heat index is well known in the art (col. 1, lines 47-50). The sensing of the condition may be done on a periodic basis, continually, or when prompted by the controller (col. 4, lines 34-36). Additionally, the subscriber may also, as an alternative, instruct the controller to provide

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numerical readings related to the subscribed environmental conditions (col. 5, lines 20-26). The communication devices may interpret the sensed data before providing the data to the controller. If the sensed data does not compare favorably against a threshold, then the data is not submitted to the controller (col. 6, lines 9-14). Providing an alarm condition warning of a high heat index to a user/subscriber would have been obvious to one of ordinary skill in the art as a means of promoting safety due to the high degree of danger associated with exposure to high heat indices.

As to the limitation of providing a vibrational signal to a user/subscriber, as recited in claims 8 and 9, the Examiner takes official notice that vibrational signaling means are well known in the art of wireless communication devices.

As to the limitation of providing an attachment mechanism, as recited in claim 10, the Examiner takes official notice that such a feature is well known in the art of wireless communication devices as a means for attaching a phone, pager, etc. to one's belt, pocket, or purse strap.

14. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,287,762 (Baer) in view of US 6,031,455 (Grube et al.). The reference to Baer discloses a digital weather station which includes a first housing (60) holding a transducer (16), as shown in Figure 2, for measuring humidity, a second housing holding a transducer (14) for measuring temperature, a control mechanism/microprocessor (22) connected to the housing, and a power source (col. 3 lines 64-65) connected to the microprocessor (22). The control mechanism collects and processes various parameters, such as temperature data and humidity data, calculates the "temperature

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humidity index" (ie. the heat index), and displays all three, either separately or by manual control of the operator (col. 4, lines 10-14 and 65-68). The reference states that each parameter may be identified by its own indicator display, or a single illuminated display with sequentially illuminated distributed indicia showing which parameter has been selected may be used (col. 1, lines 55-60).

The microprocessor is employed for calculations and to store data, such as maximum and minimum readings (col. 8, lines 40-45). The reference to Baer fails to disclose a signaling device to alert a user when the heat index reaches a predetermined condition or an attachment mechanism to attach a housing to the user. The reference to Grube et al. discloses a method and an apparatus for monitoring environmental conditions in a communication system. A subscriber (22) holding a portable sensor (37) senses a particular environmental condition or conditions (28). The sensor (37) may be a cellular telephone, land mobile radio, or any other device that receives or transmits data via a wireless communication path. The sensed conditions are relayed to infrastructure equipment/controller (18) over a wireless communication path. The infrastructure equipment receives the information and processes the information by storing the information, averaging the information, predicting future environmental conditions, generating warning signals based on the levels of the environmental conditions, and providing feedback to an individual communication device (col. 2, lines 31-44). The reference states that environmental conditions (28) may be weather conditions, such as temperature, humidity, etc. The sensor (37) may also be a plurality of sensors to sense a plurality of environmental conditions (28). The subscriber (22) may customize his or her threshold as to when feedback is to be provided (col. 3, lines 7-22). The

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feedback to the communication devices may be short messaging services, audible alarms, verbal conditions and/or warnings, images, text messages, or any combination thereof. The reference states that the sensor (37) may sense weather conditions, allergen conditions, hazardous gas conditions, and/or any other type of environmental condition that would be of interest to a subscriber (col.4, lines 16-19). The background of the invention states that issuing a warning based on a fixed threshold for an environmental condition such as heat index is well known in the art (col. 1, lines 47-50). The sensing of the condition may be done on a periodic basis, continually, or when prompted by the controller (col. 4, lines 34-36). Additionally, the subscriber may also, as an alternative, instruct the controller to provide numerical readings related to the subscribed environmental conditions (col. 5, lines 20-26). The communication devices may interpret the sensed data before providing the data to the controller. If the sensed data does not compare favorably against a threshold, then the data is not submitted to the controller (col. 6, lines 9-14). Providing an alarm condition warning of a high heat index to a user/subscriber would have been obvious to one of ordinary skill in the art as a means of promoting safety due to the high degree of danger associated with exposure to high heat indices.

As to the limitation of providing an air inlet for the housing(s), the Examiner deems that this limitation is inherent in order for the transducer(s)/sensor to measure the respective parameters. Without an air inlet the transducer/sensor would be unable to determine the temperature or the humidity outside of the respective housing.

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As to the limitation of providing an attachment mechanism, the Examiner takes official notice that such a feature is well known in the art of wireless communication devices as a means for attaching a phone, pager, etc. to one's belt, pocket, or purse strap.

15. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

The reference to JP 5-187695 (Tajima et al.) discloses an amenity sensing device utilizing a humidity sensor (112), a temperature sensor (111), and a fuzzy inference means (120) which calculates a warm heat index (118) and an air room index (119) based on signals from a number of sensors including the humidity and temperature sensors. The sensed amounts are displayed by display means (105) in real time.

The reference to US 6,111,51 (Honeyager et al.) discloses a hand-held environmental monitor which utilizes a humidity sensor and a temperature sensor to monitor environmental and physiological conditions affecting a user, including heat stress.

The reference to US 6,257,074 (Kellerman) discloses a portable hand-held vane anemometer utilizing a temperature sensor (42) and a humidity sensor (50). The reference further discloses that the heat index can be determined from the temperature and humidity values and presented on a display (3). A key pad (24) associated with the display (3) can be used to select the temperature, humidity, or heat index for viewing on the display (3).

16. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Daniel Larkin whose telephone number is (703) 308-6724. The Examiner can normally be reached on Monday-Friday from 7:00 AM - 4:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Hezron E. Williams, can be reached on (703) 305-4705. The FAX telephone number for this Technology Center (TC 2800, unit 2856) is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Daniel Larkin

23 April 2002


DANIEL S. LARKIN
PRIMARY EXAMINER